

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

TELCORDIA TECHNOLOGIES, INC.,)	<u>REDACTED PUBLIC VERSION</u>
)	
Plaintiff/Counterclaim Defendant,)	
)	Civil Action No. 04-875-GMS
v.)	
)	
LUCENT TECHNOLOGIES, INC.,)	
)	
Defendant/Counterclaim Plaintiff.)	
_____)	
TELCORDIA TECHNOLOGIES, INC.,)	
)	
Plaintiff/Counterclaim Defendant,)	
)	Civil Action No. 04-876-GMS
v.)	
)	
CISCO SYSTEMS, INC.,)	
)	
Defendant/Counterclaim Plaintiff.)	
_____)	

**ANSWERING BRIEF OF PLAINTIFF TELCORDIA TECHNOLOGIES, INC.
IN OPPOSITION TO DEFENDANTS' MOTION FOR SUMMARY JUDGMENT OF
INVALIDITY OF U.S. PATENT NO. 4,893,306 BASED ON BEST MODE VIOLATION**

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I. INTRODUCTION

Defendants Lucent Technologies, Inc. (“Lucent”) and Cisco Systems, Inc. (“Cisco”) have failed to sustain their heavy burden of showing that there are no genuine issues of material fact regarding whether U.S. Patent No. 4,893,306 (“the ’306 patent”) adequately discloses the inventors’ best mode of carrying out the invention. As a result, defendants’ motion for summary judgment that the ’306 patent is invalid should be denied.

Defendants make essentially one oversimplified argument—that Figure 12 of the patent shows a parallel data out line **208** after an optional delay unit **230**, and that one of the three inventors during one small part of multiple days of inventor testimony

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The entire body of evidence, however, demonstrates that things are not as simple as defendants claim and no violation of the best mode requirement occurred .

First, there is, at a minimum, a factual dispute as to whether the particular delay unit features on which the defendants focus are even related to the claimed invention, as that invention has been defined by this Court. In particular, the ’306 patent specification

REDACTED both expressly indicate that the delay unit **230** relied on by defendants is “optional” and relates to an “alternative” approach. Moreover,

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Under the Court’s claim construction, which issued after all the ’306 inventors were deposed, “the invention” as claimed does not even cover the alternative embodiments (shown in Figures 5 and 9) in which a delay unit may have been used. As a result, the truth is that the

inventors disclosed more, not less, than what was necessary in order to comply with the patent statute, since the best mode requirements would have been satisfied even if no delay unit had been disclosed at all. The specific logic circuits shown in Figs. 5 and 9 cannot, under the Court's current claim construction, constitute the best mode of practicing the *claimed* invention and, therefore, the absence of production details relating to those unclaimed circuits cannot render the patent claims invalid.

Second, there is a factual dispute as to whether the inventors actually considered the particular logic circuit features on which the defendants focus to be the "best" mode of practicing their claimed "invention." The '306 patent specification, contemporaneous documents by the inventors, and **REDACTED** not only indicate that delay unit **230** was "optional" and related to an "alternative," but confirm that defendants have improperly fixated on production details (a parallel data output line) for an interim version of framer unit **200** when the specification and inventors made clear that the best and contemplated implementation of the framer unit was one in which "the framer unit **200** is formed as a single chip." '306 patent, col. 16, lines 24-25. The contemporaneous evidence shows that the particular logic circuits relied on by defendants, which relate to use of a "peek parallel out" line that would be used in conjunction with other circuits outside of the actual framer chip, was only suggested on an interim basis to permit fabrication of some integrated circuits for testing as the inventor waited for the final format of the detailed packet structure to be determined. Thus, the logic circuits that defendants rely on are merely an optional production detail for producing incomplete integrated circuits on an interim basis, and do not comprise what the inventors regarded to be the best method of implementing the claimed invention.

Third, there is a factual dispute as to whether the disclosure in the '306 patent specification is adequate to enable one skilled in the art to practice the best mode for practicing the claimed invention, assuming an implementation with a delay unit together with a parallel data output line to external circuits was in fact contemplated as the preferred mode for carrying out the claimed invention. For example, defendants focus solely on the depiction of a delay unit 230 as a dashed box in Figure 12 of the '306 patent with a single broken line appearing between components 214 and 216 in that drawing. But defendants fail to take into consideration the special representation used in Figure 12 to illustrate the insertion of an optional delay unit 230, the accurate written description of the framer unit in columns 16-17 of the specification, and the depiction of specific logic circuit in Figure 12, such as a frame detector 214 that first examines parallel output data from converter 212 and then communicates to control unit 210 whether incoming data has been received. These disclosures in the patent, in combination with the knowledge of a person of ordinary skill in the art, teach such a person how to practice a supposed best mode that utilizes a delay unit. Indeed, Telcordia's expert, Dr. Prucnal, explained in his expert report and testified at his deposition that the

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Whether a patent is invalid due to a violation of the best mode requirement is a question of fact. *Chemcast Corp. v. Arco Indus. Corp.*, 913 F.2d 923, 928 (Fed. Cir. 1990). Because there are genuine issues of material fact concerning whether the supposedly missing information about a delay unit with a parallel data output line to external circuits even relates to the claimed invention, whether the inventors actually considered those particular logic circuit features to be the best mode of practicing the claimed invention, and whether the disclosure in the '306 patent

specification is adequate to enable a person of ordinary skill in the art to practice the invention according to the best mode, summary judgment is inappropriate.

II. STATEMENT OF FACTS AND OF THE NATURE AND STAGE OF THE PROCEEDINGS

A. Background of Proceedings Relevant to the Motion

Telcordia filed its original complaints in these actions on July 16, 2004, and filed its amended complaints on June 14, 2005. Telcordia asserted U.S. Patent Nos. 4,893,306 and Re. 36,633 against defendant Alcatel USA, Inc. ("Alcatel"), and the '306 patent, the '633 patent, and U.S. Patent No. 4,835,763 against defendants Lucent and Cisco. On July 18, 2006, the Court stayed the Alcatel case upon Alcatel's motion pursuant to 28 U.S.C. § 1659(a). (D.I. 218 in C.A. No. 04-874-GMS). The cases are not consolidated but are governed by a common Revised Scheduling Order (D.I. 83 in 04-CV-875 GMS and D.I. 72 in 04-CV-876 GMS)¹ and are scheduled for trial during the period of April 16, 2007 to May 25, 2007.

Based on the Court's June 22, 2006, claim construction decision, Telcordia determined that it cannot prove that any of defendants' accused products infringe any of the asserted claims of the '306 patent under the Court's construction of that patent. Nonetheless, defendants Cisco and Lucent continue to assert that the '306 patent claims are invalid, including invalidity based on an alleged failure to disclose the best mode of carrying out the invention.

Following a September 18, 2006 teleconference, the Court denied Telcordia's request to have the court render the defendants' '306 patent invalidity counterclaims moot, granted Telcordia's request to file this motion for summary judgment with respect to the anticipation and

¹ Hereinafter, citations to documents with docket item numbers in both cases will be in the form of the D.I. number for C.A. No. 04-875-GMS (the Lucent case) followed by the D.I. number for C.A. No. 04-876-GMS (the Cisco case).

enablement counterclaims, and granted defendants' request to file a motion for summary judgment on their best mode invalidity defense. This response addresses defendants' motion for summary judgment with respect to the best mode.

B. Statement of Facts Relevant to the Motion

The '306 patent covers an invention that allows different data sources providing data at different bit rates, for example, voice, video, and computer data, to share the same communication link using a technique the patent identifies as "Dynamic Time Division Multiplexing" (DTDM). *See generally* Exhibit 1 to D.I.s 260, 247, '306 patent, col. 4, lines 39-47 and col. 5, lines 13-38. In DTDM, the source data is first arranged in the form of packets consisting of discrete blocks of data with a header at the front indicating where the data is being sent. As soon as a packet from any of the possible sources has been formed and is ready to be sent, that packet can be placed into a "frame" for transmission over a communication link. The frames, which are continually being created, consist of separate "overhead" and "payload" fields, and are arranged so that packets of source data can be placed in the payload fields. *See generally* '306 patent, col. 4, line 48 to col. 5, line 7.

At issue are claims 1, 3 and 4.

Claim 1 provides:

1. A method for simultaneously transmitting data from sources having different bit rates in a telecommunication network comprising the steps of:

generating a bit stream comprising a sequence of frames, each of said frames including a transmission overhead field containing frame timing information and an empty payload field, and

filling the empty payload fields in said frames with data in packetized format from a plurality of sources which have access to the bit stream including circuit or packet sources, such that data in packetized format from any of said sources is written into any available empty payload field of any of said frames for transmitting data from each of said sources at its own desired bit rate via said bit

stream and for transmitting data from said plurality of sources simultaneously via said bit stream.

Claim 3 provides:

3. A method for generating a bit stream capable of transporting data originating from both circuit transmission and packet sources comprising

generating a bit stream comprising a sequence of frames, each of said frames including a transmission overhead field containing frame timing information and an empty payload field,

packetizing data from a plurality of sources having different bit rates and which have access to said bit stream including circuit transmission sources or customer premises equipment to produce data packets, and

inserting said packets from said sources into the empty payload fields of said frames such that a packet from any of said sources is inserted into any available empty payload field of any of said frames for transmitting data from each of said sources at its own desired bit rate via said bit stream and for transmitting data from said plurality of sources simultaneously using said bit stream.

Finally, claim 4 provides:

4. An apparatus for assembling a dynamic time division multiplexing bit stream comprising,

generating means for generating a train of frames wherein each frame includes a transmission overhead field containing timing information and an empty payload field,

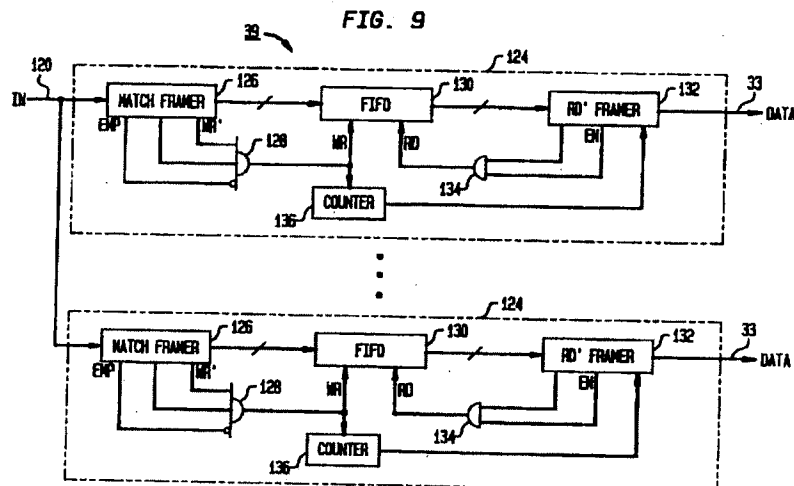
processing means for processing data from a plurality of sources into packet format,

inserting means for receiving said train of frames and for inserting each of said packets comprised of data from one of said plurality of sources into any empty payload field of any of said frames available to said inserting means to form said bit stream so that data from each of said sources can be transmitted at its own desired bit rate via said bit stream and so that data from said plurality of sources can be transmitted simultaneously via said bit stream.

None of the limitations in these asserted claims are directed to the structure or operation of a delay unit, which is an unclaimed and optional component. Moreover, none of the asserted claims are directed to the production details of an integrated circuit, such as whether and how to provide input data to an external circuit.

In fact, the Court in its claim construction order determined that the asserted claims do not relate to the “particular situations” disclosed in the ’306 patent, column 17, lines 8-15, in which the inventors indicated that a delay unit “may be included.” For example, the Court interpreted the term “plurality of sources which have access to the bit stream” in claim 1 and “plurality of sources having different bit rates and which have access to said bit stream” in claim 3 to mean “two or more sources that each insert data into the generated bit stream via its own tributary.” D.I.s 189 and 179 at 6, ¶ 32. In its construction, the Court appeared to accept certain of defendants’ claim construction arguments at the *Markman* hearing, where defendants argued that the asserted claims only cover the DTDM assembler 32 shown in Figure 3 and do not cover the other components shown in Figure 3, such as DTDM components 34, 36, and 39. By requiring that each of multiple sources must have a separate tributary to the bit stream in the claimed invention, the Court thereby excluded alternate embodiments for framer units shown in Figures 5 and 9 of the ’306 patent.

In the Figure 9 embodiment, for example, the input to each framer 126 is a single bit stream containing information from multiple sources:



In presenting their motion for summary judgment, Defendants do not address the Court's definition of the claimed invention (and thereby avoid the impossible task of reconciling their positions on infringement and validity). Each of the three inventors named on the '306 patent has been deposed about the subject matter for multiple days in this case as well as in the prior FORE case. In their motion, defendants rely exclusively on one small portion of the deposition testimony of one of the three inventors, Hung-Hsiang J. Chao, in which questions were answered over objection and in which he was asked about the "invention" and his "best mode." But earlier that same day, that inventor made clear in his deposition testimony that

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For example, Dr. Chao was testifying before the claims had been construed by this Court and, on several occasions, testified that

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* * *

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Exhibit 2 to D.I. 260, 247, May 18, 2006 Chao Dep. at 286-88.

Dr. Chao's primary responsibility was to

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Notwithstanding

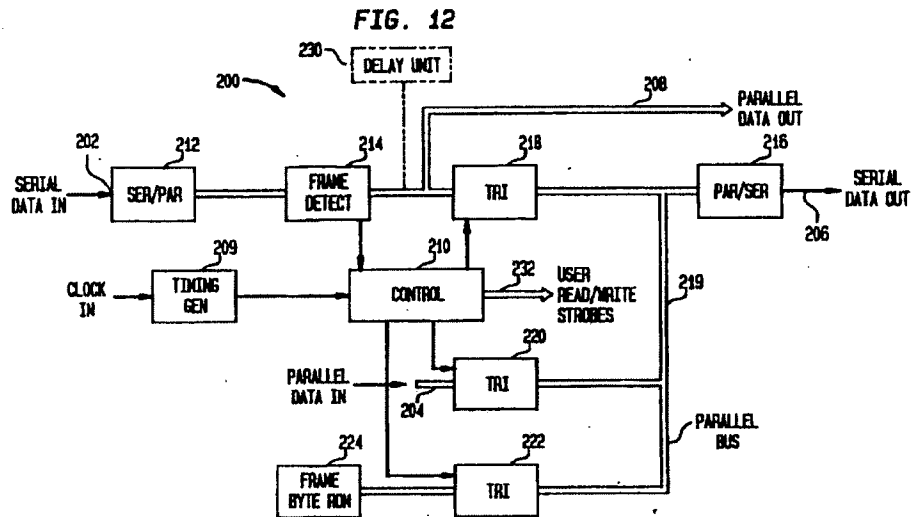
defendants' claim that Dr. Chao had only a minor contribution to the invention of the '306 patent, Dr. Chao previously testified that

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Exhibit B to this Motion,

May 27, 1999 Chao Dep. at 56-57.

The '306 patent generally discloses a "digital network transport system," referred to as "DTDM." '306 patent, col. 4, line 39-41. Part of that system is a framer chip or unit, which the patent describes as "an important component for the implementation of specific embodiments of the assemblers, disassemblers, multiplexers and demultiplexers which comprise the DTDM network discussed above." '306 patent, col. 16, lines 8-11. Figure 12 of the '306 patent is a very broad functional block diagram of a framer chip. According to the specification, "[a] framer unit 200 is schematically illustrated in FIG. 12." '306 patent, col. 16, lines 23-24. That patent figure discloses a delay unit 230, the only component of the figure shown in dotted lines:



The function of the delay unit 230 is described only in a portion of the specification addressing “particular situations”:

In particular situations (see e.g., framers 70 of FIG. 5 and 126 of FIG. 9), a framer unit receives occupied DTDM frames and the header (H) or transmission overhead (T) fields have to be examined to control peripheral circuit operations such as the reading of data into a FIFO. In this case, a multiple byte delay unit 230 may be included in the path between the serial input 202 and the parallel and serial outputs 208, 206. Typically a frame arrives at the serial input 202 and is converted to parallel form by the serial-to-parallel converter 212. The frame detector detects the frame and supplies necessary information from the header or transmission overhead fields to the control unit 210 which issues appropriate control signals via lines 232 such as user read/write strobes. Illustratively, the user read/write strobes control the writing of data from DTDM frames in the framer unit into associated FIFOs or other buffers. If the FIFO has byte wide format, the parallel output 206 may be used for this purpose. The delay unit 230 is used to insure that the necessary signal processing takes place before the DTDM frame leaves the framer unit.

'306 patent, col. 17, lines 8-30. The patent indicates, therefore, that the delay unit is merely an optional feature used in certain situations.

In the course of his work on the framer chip, Dr. Chao prepared several papers describing his progress. For example,

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(hereinafter "D.I.s 260, 247 Exhibit 5").

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D.I.s 260, 247 Exhibit 5 at 3.

that

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* * *

D.I.s 260, 247 Exhibit 5 at 7.

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In a later published paper, Dr. Chao further explained the interim nature of his proposed designs:

The detailed circuit design of the chip cannot be attempted until a complete packet structure is determined. Therefore, the chip at present will only contain some basic functions that are independent of the packet structure. For prototyping the architectures in the early stages, those functions related to the detailed packet structure can be realized with external circuits, such as programmable array logic (PAL).

Exhibit 6 to D.I.s 260, 247, Chao, "Design Architectures of a DTDM Packet Assembler and Packet Multiplexer" at 86 (hereinafter "D.I.s 260, 247 Exhibit 6"). Dr. Chao again noted that, since the packet structure was unknown, the detection circuit would be outside the chip and, as a result, the design shown in the paper would use a K-byte delay circuit. *Id.*

Dr. Chao and two other authors wrote a subsequent paper that also described a framer chip. Exhibit 7 to D.I.s 260, 247, Chao, Robe and Smoot, "A 140 Mbit/s CMOS LSI Framer Chip for a Broad-Band ISDN Local Access System" (hereinafter "D.I.s 260, 247 Exhibit 7"). Although the diagrams in that paper have some similarities to the diagrams in the prior two papers, Mr. [REDACTED]

In particular, Figure 5 of that later paper also shows a delay unit, this time a two-byte delay, positioned between the parallel data output and the serial data output:

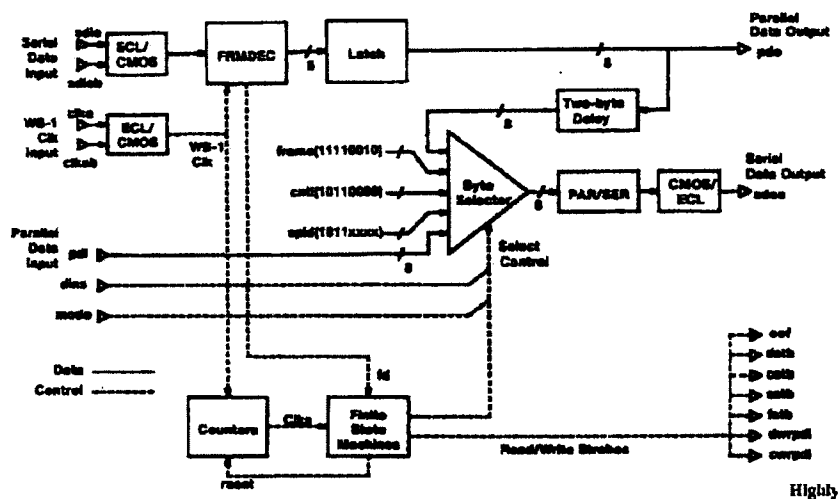


Fig. 5. Framer-chip block diagram.

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Exhibit B, May 27, 1999 Chao Dep. at 155-58.

Dr. Chao explained in his deposition testimony for the defendants here that

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Exhibit A, May 18, 2006 Chao Dep. at 306. He indicated in testimony
unquoted by defendants that :

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Exhibit A, May 18, 2006

Chao Dep. at 307.

As noted above, Dr. Chao had several different versions of diagrams of the logic circuits
for a framer chip, as reflected in his

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and an October 1987 article. But he testified for defendants that

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Exhibit A at 292, and

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Exhibit A at 293. Dr. Chao also explained that

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Exhibit A at 337-8

Indeed, further deposition testimony by Dr. Chao that was unquoted by defendants indicates

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Exhibit A at 349.

III. SUMMARY OF THE ARGUMENT

Defendants have failed to show that there are no genuine issues of material fact and that they are entitled to judgment as a matter of law on the question of whether the '306 patent is invalid for failing to disclose the best mode of carrying out the claimed invention. Defendants argue that the '306 patent failed to satisfy the best mode requirement because Figure 12 of the patent does not correctly depict the relationship between the delay unit **230** and the parallel data out line **208**, at least as those elements are shown in articles published by the inventor, Dr. Chao. That argument should be rejected.

First, the best mode must be analyzed with reference to the scope of the patent claims. The Court's claim construction in this case excludes from the claims' scope framer units where the input is a single shared tributary, such as the frames depicted in Figures 5 and 9 of the patent. The patent specification teaches that the delay unit, which is an optional element marked in dashed lines, may be used in frames like those in Figures 5 and 9 having a single shared input. Since an inventor need not disclose the best mode of carrying out unclaimed features, like the delay unit, of unclaimed embodiments, there can be no best mode violation under the Court's current claim construction even if information were missing from the patent.

Second, the very fact that the patent describes the delay unit as an option demonstrates that it was not the best mode. Indeed, the inventor's own contemporaneous articles prove the opposite: a delay unit with a data output line to outside circuitry was used in a developmental phase of an integrated circuit because, since the format of incoming frames was not yet determined, the circuitry for examining the frames was placed outside the chip. In the final and best design, that circuitry would be inside the single chip used to implement the framer unit, and

the supposedly critical relationship between the delay unit and the parallel data out line would have no relevance.

Third, the complete patent disclosure, when combined with the knowledge of a person of ordinary skill in the art, would enable such a person to practice the best mode. Telcordia's expert, Dr. Prucnal, has opined that

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Likewise, Dr. Chao testified at his deposition that

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In light of that evidence, defendants cannot demonstrate that there are no genuine issues of material fact concerning whether the patent discloses the supposed best mode.

IV. ARGUMENT

Summary judgment is appropriate only "if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c). "In determining whether there is a genuine issue of material fact, the evidence must be viewed in the light most favorable to the opponent of the motion, and doubts resolved in favor of the opponent." *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1571 (Fed. Cir. 1991) (citing *Poller v. Columbia Broadcasting System, Inc.*, 368 U.S. 464, 473 (1962) and *Cantor, dba Selden Drugs Co v. Detroit Edison Co.*, 428 U.S. 579, 582 (1976)). "The burden of establishing entitlement to summary disposition is with the movant, with due consideration to the burden of proof." *Scripps*, 927 F.2d at 1571

(reversing grant of summary judgment that patent was invalid for violation of best mode requirement).

Here, the '306 patent is presumed valid, 35 U.S.C. § 282, and defendants bear the burden of proving invalidity by clear and convincing evidence. *Scripps*, 927 F.2d at 1578. As a result, not only must the Court construe all factual disputes in Telcordia's favor, the Court must also "view the evidence presented through the prism of the substantive evidentiary burden" that would inhere at trial, namely defendants' clear and convincing evidence burden. *Johns Hopkins Univ. v. Cellpro, Inc.*, 152 F.3d 1342, 1359 (Fed. Cir. 1998) (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242 (1986)). In light of those governing legal standards and the facts, genuine issues of material fact exist relating to the best mode issue and defendants are not entitled to judgment as a matter of law on the issue of whether it has been shown, by clear and convincing evidence, that the '306 patent is invalid for failing to disclose the best mode. Accordingly, defendants' motion for summary judgment should be denied.

According to 35 U.S.C. § 112, first paragraph, "[t]he specification shall . . . set forth the best mode contemplated by the inventor of carrying out his invention." "Compliance with the best mode requirement is a question of fact, and invalidity for failure of compliance requires proof by clear and convincing evidence that the inventor know of and concealed a better mode of carrying out the invention than was set forth in the specification." *Scripps*, 927 F.2d at 1578. It is now well-established that the factual inquiry into the best mode requirement has two components:

The first is whether, at the time the inventor filed his patent application, he knew of a mode of practicing his claimed invention that he considered to be better than any other. This part of the inquiry is wholly subjective, and resolves whether the inventor must disclose any facts in addition to those sufficient for enablement. If the inventor in fact contemplated such a preferred mode, the second part of the analysis compares what he knew with what he disclosed—is the disclosure

adequate to enable one skilled in the art to practice the best mode or, in other words, has the inventor “concealed” his preferred mode from the “public”? Assessing the *adequacy* of the disclosure, as opposed to its *necessity*, is largely an objective inquiry that depends upon the scope of the claimed invention and the level of skill in the art.

Chemcast, 913 F.2d at 927-28.

With those standards in mind, defendants have not proven a best mode violation. First, the “scope of the claimed invention” is different from what defendants assume, because the Court’s claim construction does not cover the “particular situations” that require use of the delay unit of Figure 12. Second, the patent specifies that the “particular situations” using the delay unit are optional, and the inventor’s papers show that the location of a parallel data output relative to the delay unit was only an optional solution, so in fact that structure was not the best mode. And third, regardless of whether the claims cover those “particular situations” and whether the delay unit design actually was the best mode, the complete patent disclosure, as understood by a person of ordinary skill in the art, still would permit such a person to practice the best mode.

A. The Supposedly Omitted Information Does Not Relate To The Claimed Invention

The absence of information regarding the placement of the delay unit of Figure 12 cannot establish a best mode violation because the patent itself indicates use of that component occurs in situations outside the scope of the claims, as interpreted by this Court. And since the only information defendants claim is missing from the ’306 patent is the supposedly proper relationship between the delay unit and a parallel data out line, defendants cannot establish a best mode violation under the Court’s claim construction.

“[T]he contours of the best mode requirement are defined by the scope of the *claimed* invention.” *Northern Telecom Ltd. v. Samsung Elec. Co.*, 215 F.3d 1281, 1286 (Fed. Cir. 2000) (emphasis in original); *see also Chemcast*, 913 F.2d at 927 (an “objective limitation on the extent

of the disclosure required to comply with the best mode requirement is, of course, the scope of the claimed invention.”). As a result, “the first task in any best mode analysis is to define the invention at hand.” *Northern Telecom*, 215 F.3d at 1286. In this case, the Court has already construed the claims and limited their scope to embodiments where each data source has access to the bit stream through its own tributary. That construction excludes the framer units described in Figures 5 and 9 of the patent, where the input to the framer is a single bit stream that contains data from multiple sources.

By its very terms, the '306 patent does not disclose any need for the delay unit except in “particular situations,” namely those described in Figures 5 and 9 where “a framer unit receives occupied DTDM frames.” '306 patent, col. 17, lines 8-10. Indeed, despite the emphasis placed on the delay unit in defendants' motion, it is not mentioned in the '306 patent until the last paragraph of the specification before the conclusion and the claims. '306 patent, col. 17, line 14. Figure 12 itself shows the delay unit **230** in dotted lines, indicating that it not a necessary part of the framer unit. Defendants' motion attempts to paint a picture of an invention that will not, or cannot, work because the critical relationship between the delay unit and the parallel data out line is incorrectly drawn in Figure 12 (as if Figure 12 is a detailed production specification), but in fact the patent teaches a use for the delay unit in situations that the Court has already determined are outside the scope of the claims.

The language of the '306 patent specification and the Court's claim construction are sufficient to demonstrate that the supposedly missing information relates to unclaimed features, but that conclusion is further bolstered by the testimony of Telcordia's expert, Dr. Prucnal. Dr. Prucnal expressed his opinion in his expert report that

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Exhibit C to this Response, Expert Report of Paul Prucnal Regarding Validity of U.S. Patent No. 4,893,306 (hereinafter "Prucnal Report") at 36. Dr. Prucnal explained that

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Prucnal Report at 36.

Since there is no requirement that an inventor set forth a preferred way to implement unclaimed features of an unclaimed embodiment, any information lacking from Figure 12 concerning the relationship between the delay unit and the parallel data out line cannot serve as the basis for a best mode violation under the Court's claim construction.

B. The Defendants Cannot Establish That The Delay Unit Shown In Figure 12 Of The '306 Patent Used As Depicted In Dr. Chao's Articles Is The Best Mode

The patent indicates that the delay unit is merely optional and is used only in "particular situations." Figure 12 of the patent confirms the optional nature of that component by depicting the delay unit in dashed lines, in distinct contrast to the other components of Figure 12, all of which are shown in complete lines. Such an optional feature cannot have been regarded as the best mode of carrying out the entire claimed invention, since the inventors have expressly indicated its utility was only in a few situations. Where a particular method of carrying out a claimed invention is useful only in certain situations, that method is not properly termed the best mode. *See, e.g., High Concrete Structures, Inc. v. New Enterprise Stone and Lime Co.*, 377 F.3d 1379, 1383-84 (Fed. Cir. 2004) (inventor's undisclosed preference for using a crane to perform the claimed method of tilting a special truck bed was not a best mode violation since that was only an option useful in situations where the truck bed was heavily loaded and was not needed in other situations); *cf. Eli Lilly and Co. v. Barr Labs., Inc.*, 100 F. Supp. 2d 917, 926-35 (S.D. Ind. 1999) (finding that failure to disclose specific chemicals used in optional purification step was

not best mode violation). Here, the delay unit is portrayed in the patent as useful in some, but not all, circumstances, so it cannot be the best mode of carrying out the overall invention.

Aside from the fact that the use of the delay unit was only an optional feature of the overall invention disclosed and claimed in the '306 patent, the particular feature that the defendants assert is "misdrawn" is also merely an option. Exhibit D to this Response, August 8, 2006 Prucnal Dep. at 352, 567-69. Thus, technical papers merely provide a production detail, and one that was not considered the final "single chip" design of the proposed framer unit. Indeed, those papers describe, in rough functional blocks, an interim measure intended for use only until the final packet structure was determined.

Dr. Chao's first paper, the internal Bellcore Technical Memorandum, states that

REDACTED

D.I.s 260, 247 Exhibit 5 at 3.

REDACTED

D.I.s 260, 247 Exhibit 5 at 7.

REDACTED

D.I.s 260,

247 Exhibit 5 at 7.

REDACTED

Dr. Chao's second paper demonstrates just as clearly that the design defendants now trumpet as the best mode was merely an interim measure and not the final contemplated design.

In that paper, Dr. Chao stated:

The detailed circuit design of the chip cannot be attempted until a complete packet structure is determined. Therefore, the chip at present will only contain some basic functions that are independent of the packet structure.

D.I.s 260, 247 Exhibit 6 at 86. Dr. Chao went on to repeat the teaching of the initial internal paper that the K-byte delay circuit having a peek parallel data out was used because in that interim "the circuits for detecting the packet occupancy and line (or channel) ID will not be built inside the chip." *Id.*

Defendants' reliance on Dr. Chao's third paper, Exhibit 7 to D.I.s 260, 247 (*see* D.I.s 260, 247, Opening Brief at 11 and n.6), is similarly mistaken. At a minimum, there are genuine issues of material fact surrounding the question of whether the diagram in Figure 5 of that paper is describing the same delay unit as that set forth in the '306 patent. Dr. Chao's earlier deposition testimony states that

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Exhibit B at 153-158. Indeed, defendants state only that the paper describes "the same work" as Dr. Chao's earlier work, glossing over the differences in the figures and Dr. Chao's earlier deposition testimony. D.I.s 260, 247 Opening Brief at 11 n.6.

Thus, the patent itself identifies the delay unit as only an option used in certain particular circumstances. Moreover, the patent specification expressly teaches that a framer unit should be "formed as a single chip." '306 patent, col. 16, lines 24-25. The inventor's papers taught that a delay unit with a "peek" parallel data out line were used because, at that particular stage of chip

development, the packet structure was not yet determined and undefined external circuitry was therefore to be used to read the header information. In the final design, however, Dr. Chao indicated he would incorporate all circuitry for reading header information into the chip itself, making it unnecessary to send header information to outside circuitry and rendering the relationship between the “peek” parallel data out line and the delay unit irrelevant.

Such a minor, optional feature—and one that the inventor’s memorandum indicates could be entirely omitted—clearly does not bear a sufficient relationship to what is claimed in the ’306 patent to constitute the “best mode” for “carrying out” the claimed invention. *See Wahl Instruments, Inc. v. Acvious, Inc.*, 950 F.2d 1575, 1579 (Fed. Cir. 1991) (“the particulars of making a prototype or even a commercial embodiment do not necessarily equate with the ‘best mode’ of ‘carrying out’ an invention.”) As recognized in *Wahl*, the best mode inquiry is not a “trap” that mechanically looks for any differences between how an inventor thought his invention should be manufactured at one moment and what is contained in the patent disclosure:

The district court apparently believed that Parker’s “admission” of embedment molding being “the best technique for the manufacture of the egg-timer” was an admission that such technique was the best mode of carrying out the invention within the meaning of the statute. His “admission” does not carry such legal weight. Any process of manufacture requires the selection of specific steps and materials over others. The best mode does not necessarily cover each of these selections. To so hold would turn a patent specification into a detailed production schedule, which is not its function. Moreover, a requirement for routine details to be disclosed because they were selected as the “best” for manufacturing or fabrication would lay a trap for patentees whenever a device has been made prior to filing for the patent. The inventor would merely have to be interrogated with increasing specificity as to steps or material selected as “best” to make the device. *A fortiori*, he could hardly say the choice is not what he thought was “best” in some way. Thus, at the point he would testify respecting a step or material or source or detail which is not in the patent, a failure to disclose the best mode would, *ipso facto*, be established. However, the best mode inquiry is not so

mechanical. A step or material or source or technique considered “best” in a manufacturing circumstance may have been selected for a non-“best mode” reason, such as the manufacturing equipment was on hand, certain materials were available, prior relationship with supplier was satisfactory, or other reasons having nothing to do with development of the invention.

Wahl, 950 F.2d at 1581. Here, defendants are trying to improperly “trap” one of the inventors of the ’306 patent by finding an interim solution used with a developmental prototype chip for an optional feature of the overall invention that was not ultimately disclosed in the patent. As Dr. Prucnal testified at his deposition,

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Exhibit D at 568.

As a result, defendants cannot establish that there are no genuine issues of material fact regarding whether the detailed logic circuits shown in technical papers, i.e. use a peek parallel data out line prior to a delay unit the patent describes as optional, reflect the inventor’s best mode of carrying out the invention.

C. The Disclosure Of The ’306 Patent Permits A Person Of Ordinary Skill In The Art To Practice The Supposed Best Mode

Even if the Court’s claim construction is disregarded and the claims are deemed to cover framer units like those shown in Figures 5 and 9 that use a single shared tributary, and even if the optional peek parallel data output line prior to delay unit for the interim measure described in Dr. Chao’s papers is considered covered by the best mode requirement under the statute, defendants still have not shown, by clear and convincing evidence, that a person of ordinary skill in the art could not practice the alleged best mode based on the disclosures in the ’306 patent combined with the knowledge of such a person.

The mere fact that information known to the inventor is not expressly described in a patent specification does not establish a best mode violation. Instead, the second part of the best mode inquiry is whether the patent disclosure is adequate to enable one skilled in the art to practice the best mode, taking into the consideration, among other things, the level of skill in the art. *Chemcast*, 913 F.2d at 928. Once that level of skill in the art is defined, it is unnecessary to repeat that person's entire bank of knowledge in the patent specification merely to comply with the best mode requirement:

Further, the best mode requirement does not extend to "routine details" apparent to one of ordinary skill in the art. Routine details need not be disclosed because one skilled in the art is aware of alternative means for accomplishing the routine detail that would still produce the best mode of the claimed invention.

Teleflex, Inc. v. Ficosa N. Amer. Corp., 299 F.3d 1313, 1331-32 (Fed. Cir. 2002) (internal citations omitted). Here, Dr. Prucnal has expressed his opinion that

REDACTED

Prucnal Report at 36-37.

At the outset, Dr. Prucnal has expressed his opinion that

REDACTED

Prucnal Report at 32. Needless to say, Dr.

Acampora disagrees and urges

REDACTED

highlights the presence of factual disputes that must be resolved in Telcordia's favor.

Based on that level of skill, Dr. Prucnal stated that

REDACTED

Prucnal Report at 36.

Dr. Prucnal explained further that

REDACTED

Prucnal Report at 36;

see also Prucnal Report at 37:

REDACTED

Defendants attempt to side-step Dr. Prucnal's opinion by pointing instead to a portion of Dr. Chao's deposition testimony on **REDACTED** At the outset, Dr. Chao's first language is not English, and at times it shows in his deposition testimony.

More importantly, a significant number of questions asked of Dr. Chao were objectionable, and indeed Telcordia's counsel lodged a number of objections because the questions were loaded with undefined terms and called for legal conclusions that the witness previously explained was not able to make. Defendants removed those objections from their quotations of testimony in their brief, but the number and extent of the objections should not go unnoticed when considering the import of Dr. Chao's testimony, especially in view of the explanations given by Dr. Chao for his uncertainty at pages 287-88, 206-07, and 337-38, for example. Determining whether the "best mode" was disclosed requires an evaluation of, among other things, the scope of the claims and the level of ordinary skill in the art. Yet Dr. Chao testified that

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In any event, when asked whether the patent described the very "best mode" defendants are now claiming Dr. Chao admitted was lacking from the '306 patent, Dr. Chao said

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Exhibit A at 324-25 (emphasis added).

Later questioning focused on the specifics of Figure 12, and Dr. Chao acknowledged that

REDACTED But that fact alone cannot answer the best mode inquiry. Instead, defendants must prove that a person of ordinary skill in the art cannot practice the best mode based on the patent disclosure and his own knowledge. Dr. Prucnal has opined that

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Finally, defendants point to Dr. Chao's testimony regarding

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Opening Brief at 12-13. That testimony, however, is taken out of context and does not address the salient question—whether the overall disclosure in the '306 patent would be sufficient for a person of ordinary skill in the art to practice the supposed best mode.

REDACTED and Dr.

Chao was asked what would happen if one was guided only by that particular illustration. But Figure 12 is not the entire patent disclosure, and the patent contains other discussions of the delay unit in the specification, specifically at column 17, lines 8-30. Further, the person of ordinary skill would understand from the special “dotted line” depiction that he could not and would not blindly follow the dotted lines and the supposed “mistake.” As Dr. Prucnal opined,

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Prucnal Report at

37.

Defendants cannot demonstrate that there are no genuine issues of material fact regarding whether the patent disclosure, when viewed by a person of ordinary skill in the art, would teach such a person to practice the best mode.

V. CONCLUSION

For the reasons stated above, Telcordia respectfully requests that the Court deny defendants' motion for summary judgment that the asserted '306 patent claims are invalid due to an alleged failure to disclose the best mode.

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Dated: October 20, 2006
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EXHIBIT A

REDACTED

EXHIBIT B

REDACTED

EXHIBIT C

REDACTED

EXHIBIT D

REDACTED

CERTIFICATE OF SERVICE

I hereby certify that on the 27th day of October, 2006, the attached **REDACTED**
PUBLIC VERSION OF ANSWERING BRIEF OF PLAINTIFF TELCORDIA
TECHNOLOGIES, INC. IN OPPOSITION TO DEFENDANTS' MOTION FOR
SUMMARY JUDGMENT OF INVALIDITY OF U.S. PATENT NO. 4,893,306 BASED ON
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